

**REMARKS**

In the Office Action mailed June 2, 2009,<sup>1</sup> the Examiner took the following actions:

(a) rejected claims 19, 21, 23, 24, 26, and 30-34 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,539,000 to Murai et al. ("Murai") in view of U.S. Patent 5,341,363 to Hirasawa ("Hirasawa");<sup>2</sup>

(b) rejected claims 20, 22, and 25 under 35 U.S.C. § 103(a) as being unpatentable over Murai in view of Hirasawa and further in view of U.S. Patent Publication 2002/0073338 to Burrows et al. ("Burrows");<sup>3</sup>

(c) rejected claims 27 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Murai in view of Hirasawa and further in view of U.S. Patent Publication 2004/0022253 to Foschiano ("Foschiano");

(d) rejected claim 29 under 35 U.S.C. § 103(a) as being unpatentable over Murai in view of Hirasawa and further in view of U.S. Patent Publication 2004/0193719 to Yang ("Yang");

By this response, Applicants amend claims 19 and 29-34 and cancel claims 21 and 22. Accordingly, claims 19, 20, and 23-34 remain pending.

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<sup>1</sup> The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement of characterization in the Office Action.

<sup>2</sup> Because Applicants have cancelled claim 21, the Examiner's rejection of the same as obvious over Murai and Hirasawa is moot. Moreover, although the Examiner did not include claim 26 in the list of claims rejected as obvious over Murai and Hirasawa, see Office Action, p. 2, the Examiner nevertheless referenced only Murai and Hirasawa in his rejection of claim 26, see Office Action, pp. 5-6. Therefore, Applicants assume the Examiner intended to reject claim 26 as obvious over Murai and Hirasawa only, and not over any additional prior art. Applicants request clarification to ensure the submission of a complete response.

**I. Rejection of under 35 U.S.C. § 103(a)**

Applicants respectfully traverse the rejection of claims 19, 20, and 23-34 under 35 U.S.C. § 103(a) as being unpatentable over the cited art because a *prima facie* case of obviousness has not been established.

"[T]he framework for objective analysis for determining obviousness under 35 U.S.C. 103 is stated in Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q 459 (1966) . . . . The factual inquiries . . . [include determining the scope and content of the prior art and] . . . [a]scertaining the differences between the claimed invention and the prior art." M.P.E.P. § 2141(11). "Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art." M.P.E.P. § 2141(11).

**A. Claims 19, 23, 24, 26, and 30-34**

The Examiner rejected claims 19, 23, 24, 26, and 30-34 under 35 U.S.C. § 103(a) as being unpatentable over Muraj in view of Hirasawa. While Applicants do not agree that the prior art cited by the Examiner teaches or suggests the subject matter of claims 19, 21, 23, 24, and 30-34, to advance prosecution, Applicants have amended independent claims 19 and 30-34 to recite elements not found or suggested in the cited art.

For example, amended independent claim 19 recites, *inter alia*:

a reconnecting unit configured to reconnect the terminal apparatus when a return interval time has passed after the terminal apparatus was disconnected from the network by the logical disconnect,

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<sup>3</sup> Because Applicants have cancelled claim 22, the Examiner's rejection of the same as obvious over Muraj, Hirasawa, and Burrows is moot.

wherein the reconnecting unit increases the return interval time from the return interval time at the immediately preceding disconnection when the number of packets, which the packet volume detecting unit detects for a first time after the reconnection, exceeds the predetermined value, and when the increased return interval time reaches an upper limit value, the reconnecting unit maintains the return interval time at the upper limit value.<sup>4</sup>

Neither Murai nor Hirasawa, either alone or in combination, teaches or suggests all the elements of claim 19, including these, among others. In particular, although the Examiner contends that Hirasawa teaches "a reconnecting unit configured to reconnect the terminal apparatus to said network after a predetermined return time has elapsed since said terminal is disconnected from said network by said logical disconnecting unit," an assertion to which Applicants do not assent, nowhere does Hirasawa teach, *inter alia*, "the reconnecting unit increases the return interval time from the interval time from the return interval time at the immediately preceding disconnection when the number of packets . . . exceeds the predetermined value," as recited in amended claim 19. Moreover, Hirasawa fails to teach or suggest that "when the increased return interval time reaches an upper limit value, the reconnecting unit maintains the return interval time at the upper limit value," as also recited in amended claim 19. Murai, which the Examiner concedes "does not explicitly teach a logical disconnecting unit configured to logically disconnect the terminal apparatus from the network," fails to cure the deficiency of Hirasawa.

Independent claims 30-34, although of different scope, recite similar features, and thus are allowable for the same reasons. Dependent claims 23, 24, and 26, by virtue of their dependence from independent claim 19, also include these features, as

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<sup>4</sup> Support for these elements may be found, for example, in ¶¶ 48-49 and 85.

well as other features not taught or suggested by the cited art, and thus are allowable for at least the same reasons.

Accordingly, Murai and Hirasawa fail to teach or suggest all elements of claims 19, 23, 24, 26, and 30-34. Therefore, claims 19, 23, 24, 26, and 30-34 define non-obvious subject matter over Murai and Hirasawa, and should be allowed.

**B. Claims 20 and 25**

Applicants respectfully traverse the rejection of claims 20 and 25 under 35 U.S.C. § 103(a) as being unpatentable over Murai in view of Hirasawa and further in view of Burrows. No *prima facie* case of obviousness has been established.

Claims 20 and 25 depend from independent claim 19 and therefore include all recitations therein. As discussed previously, Murai and Hirasawa fail to teach or suggest all elements in amended independent claim 19, including, *inter alia*, “the reconnecting unit increases the return interval time from the interval time from the return interval time at the immediately preceding disconnection when the number of packets . . . exceeds the predetermined value.”

The Examiner appears to rely on Burrows for its alleged teachings of “the packet volume detecting unit detects the number of only those broadcast packets among packets received by the terminal apparatus” and “a unit for storing history information about disconnection and reconnection of said terminal apparatus.” See Office Action, pp. 11-14. However, even if Burrows did contain such teachings, which Applicants do not concede, Burrows nevertheless fails to disclose or suggest that “the reconnecting unit increases the return interval time from the interval time from the return interval time at the immediately preceding disconnection when the number of packets . . . exceeds

the predetermined value," as recited in claim 19, and therefore fails to cure the deficiencies of Murai and Hirasawa. Accordingly, Murai, Hirasawa, and Burrows fail to teach or suggest all elements of claims 20 and 25. Therefore, dependent claims 20 and 25 define non-obvious subject matter over Murai, Hirasawa, and Burrows under 35 U.S.C. § 103(a), and should be allowed.

**C. Claims 27 and 28**

Applicants respectfully traverse the rejection of claims 27 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Murai in view of Hirasawa and further in view of Foschiano. No *prima facie* case of obviousness has been established.

Claims 27 and 28 depend from independent claim 19 and therefore include all recitations therein. As discussed previously, Murai and Hirasawa fail to teach or suggest all elements in amended independent claim 19, including, *inter alia*, that "the reconnecting unit increases the return interval time from the interval time from the return interval time at the immediately preceding disconnection when the number of packets . . . exceeds the predetermined value."

The Examiner appears to rely on Foschiano for its alleged teaching of "a first changing unit configured to change said predetermined value in accordance with a processing load required via said network" and "wherein said first changing unit changes said predetermined value in accordance with a transition of said processing load required via said network." See Office Action, pp. 14-16. However, even if Foschiano did contain such teachings, which Applicants do not concede, Foschiano nevertheless fails to disclose or suggest that "the reconnecting unit increases the return interval time from the interval time from the return interval time at the immediately

preceding disconnection when the number of packets . . . exceeds the predetermined value," as recited in claim 19, and therefore fails to cure the deficiencies of Murai and Hirasawa. Accordingly, Murai, Hirasawa, and Foschiano fail to teach or suggest all elements of claims 27 and 28. Therefore, dependent claims 27 and 28 define non-obvious subject matter over Murai, Hirasawa, and Foschiano under 35 U.S.C. § 103(a), and should be allowed.

**D. Claim 29**

Applicants respectfully traverse the rejection of claim 29 under 35 U.S.C. § 103(a) as being unpatentable over Murai in view of Hirasawa and further in view of Yang. No *prima facie* case of obviousness has been established.

Claim 29 depends from independent claim 19 and therefore includes all recitations therein. As discussed previously, Murai and Hirasawa fail to teach or suggest all elements in amended independent claim 19, including the failure to teach, *inter alia*, "the reconnecting unit increases the return interval time from the interval time from the return interval time at the immediately preceding disconnection when the number of packets . . . exceeds the predetermined value."

The Examiner appears to rely on Yang for its alleged teaching of "a second changing unit configured to change said predetermined value in accordance with a status of said network." See Office Action, pp. 16-17. However, even if Yang did contain such a teaching, which Applicants do not concede, Yang nevertheless fails to disclose or suggest that "the reconnecting unit increases the return interval time from the interval time from the return interval time at the immediately preceding disconnection when the number of packets . . . exceeds the predetermined value," as

recited in claim 19, and therefore fails to cure the deficiencies of Muraj and Hirasawa. Accordingly, Muraj, Hirasawa, and Yang fail to teach or suggest all elements of claim 29. Therefore, dependent claim 29 defines non-obvious subject matter over Muraj, Hirasawa, and Yang under 35 U.S.C. § 103(a), and should be allowed.

### **CONCLUSION**

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

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